

Presentation to DVAC Parking Feasibility Study Sub- Committee

December 18, 2012

Parking Planning Process

Parking Planning 101

The process of identifying, quantifying and planning for a community's parking requirements in the most efficient and cost effective manner

Parking Planning Study Objectives

- **Understand current and future parking needs and utilization**
- **Define current demand characteristics unique to Community**
- **Identify factors influencing current & future parking trends**
- **Quantify need for additional parking**
- **Understand how parking can serve as an economic development tool**
- **Be sensitive to community and neighbor concerns**

Parking Planning Study Phases

Phase 1 – Parking Demand vs. Supply Analysis

Phase 2 – Alternative Assessment

- Three sites established by Town Commission

- 1. Define Study Area (area influenced by demand & supply)**
 - 2. Determine evaluation period**
 - 3. Determine information sources**
 - a. *Field data***
 - b. *Past Studies***
 - c. *Routinely collected data***
 - d. *Master Plans***
 - 4. Collect any field data needed**
 - 5. Parking supply inventory**
 - 6. Land use inventory**
 - 7. Utilization data**
 - 8. Analysis of approved or pending projects**
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9. Analyze Collected Information

a. *Existing Conditions*

b. *Projected Period(s)*

10. Develop Parking Demand Model

11. Compare Parking Demand against Parking Supply

a. *Total Study Area*

b. *By Block*

c. *By Zone*

12. Evaluate Alternatives

- a.** *Magnitude, Frequency, Duration*
- b.** *If parking shortfall (Surface vs. Structure)*
- c.** *Amount of additional parking demand could support*

13. Economic Assessment

- a.** *Construction / Development Costs*
- b.** *Operating Costs*
- c.** *Effect on Parking Rates*
- d.** *Public / Private Partnerships*

Parking Planning Study Methodology

Parking Supply Qualified / Quantified

- ***Publicly Available***
 - ***Type (On-Street/Off-Street)***
 - ***Rates by Location***
- ***Privately Provided***
 - ***Commercial***
 - ***Residential***
 - ***Controlled / Uncontrolled***

Land-Use Classifications Assessed

(Typically follow municipal zoning classifications)

- ***Retail / Commercial***
- ***Food Service / Restaurant***
- ***General Office***
- ***Financial***
- ***Hotel / Motel***
- ***Residential***
- ***Professional Office***
- ***Medical / Dental Office***
- ***Religious***
- ***Community Oriented***
- **Square Footage / living units**

Parking Planning Study Methodology

Parking Generation Characteristics

- **Long-Term**
 - Business owners / staff*
 - Method of Arrival (drive and park rate)*
 - Where parked (public / private)*
 - Full-time vs. Part-time*
- **Short-term**
 - Customers / visitors to businesses in Surfside and nearby*
 - Other visitors*
 - Method of arrival (drive and park rate)*
 - Length of stay*
 - Locations parked*

Parking Planning Study Methodology

- **Surveys**
 - *Customers / Visitors*
 - *Staff*
 - *Business Owners / Managers*
- **Utilization Studies**
 - *Observed Parking occupancy by time of day*
 - *At a minimum several points throughout the day*
 - *On-street parking noted for turnover*
 - *Public and Private spaces*

Phase 1 – Study of Current Parking Demand

Participative Process

- Stakeholder meetings / interviews
- *Surveys (paper/pencil & on-line)*
 - *business owners*
 - *employees*
 - *customers / visitors*
 - *community*



Mandan Parking User Survey

1. Default Section

1. I am a (check all that apply):

<input type="checkbox"/> City of Mandan Resident (owner)	<input type="checkbox"/> Employee of the downtown
<input type="checkbox"/> City of Mandan Resident (rent)	<input type="checkbox"/> Out-of-Town Visitor
<input type="checkbox"/> Business Owner	<input type="checkbox"/> Other

2. If you checked "resident" do you reside in the downtown?

☐ Yes
☐ No

3. My visits to the downtown occur mainly during (Please rank the following 1 - 4, with 1 being most often)

	One	Two	Three	Four
Monday - Thursday daytime (9am - 5pm)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monday - Thursday evening (after 5pm)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friday - Sunday daytime (9am - 5pm)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friday - Sunday evening (after 5pm)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. What is the primary reason for most of your visits to downtown? (please rank the following 1 thru 4, with 1 being most often)

	One	Two	Three	Four
Dining	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shopping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medical appointment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to public transportation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Special events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recreation or exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Entertainment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. How long do you generally stay in the downtown?

☐ Less than 1 hour ☐ 1-2 hours ☐ 2-3 hours ☐ 4 or more hours



Phase 1 – Study of Current Parking Demand

Determine appropriate parking generation rates using unique characteristics to community, codes and national standards

Determine parking needs by user groups

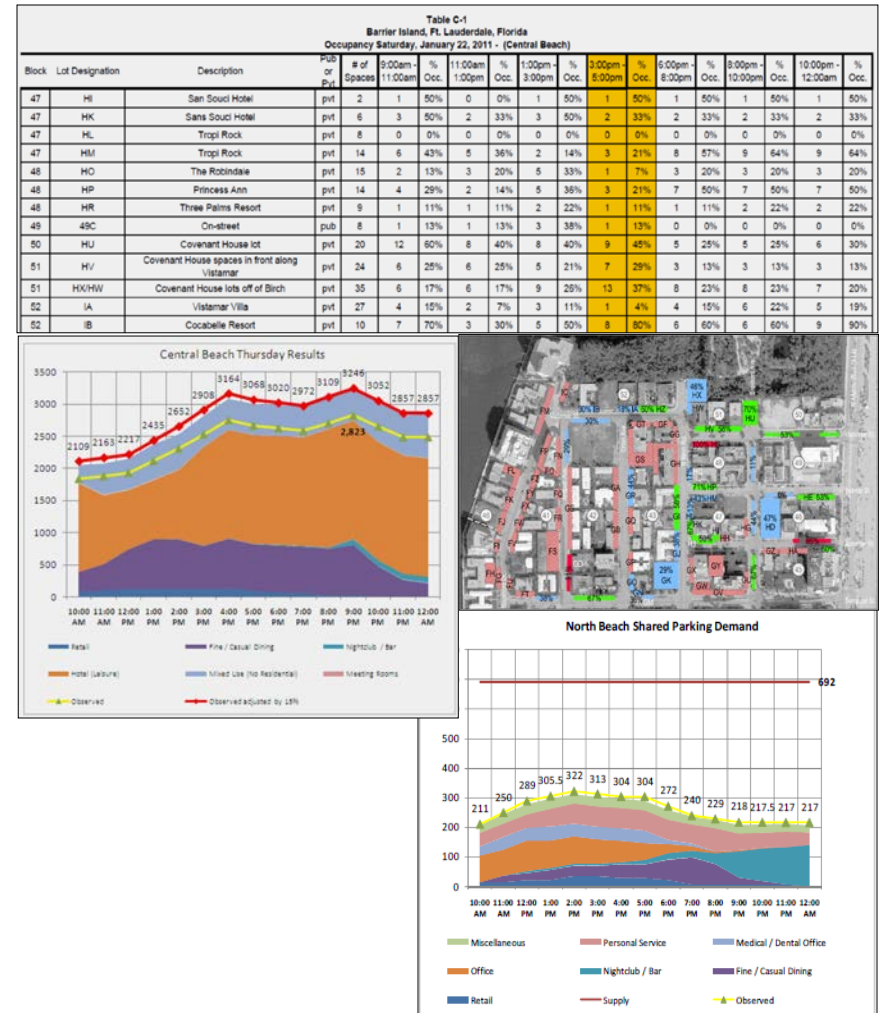
Develop current parking demand model

Analyze shared-use

Project future parking needs based on changes in land-use, new developments, re-occupancy, etc.

Determine how much parking is needed and timing

Factor in seasonal impacts



Phase 2 – Recommendations

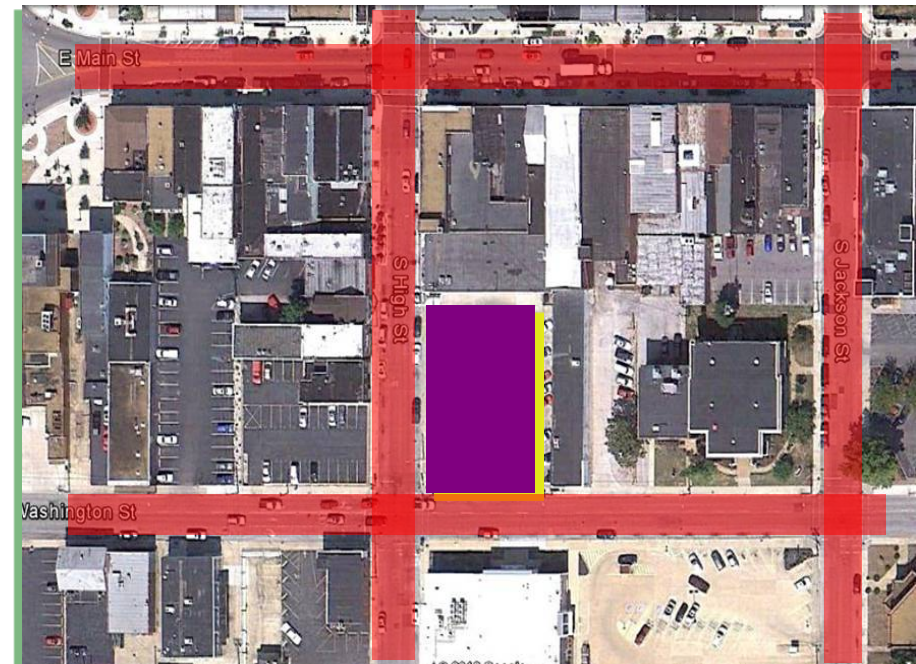
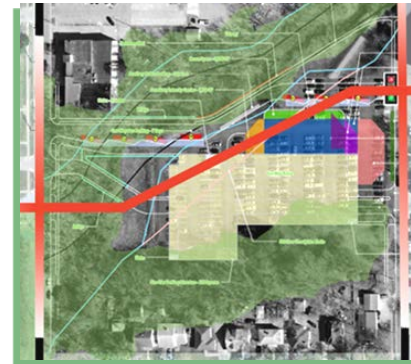
New Parking Analysis

Programming

- Define user groups
- Identify mixed-use opportunities
- Identify community amenities
- Locate pedestrian connections
- Define vehicular circulation and traffic
- Operating plans (attended or non-attended)
- Establish budget

Site Analysis

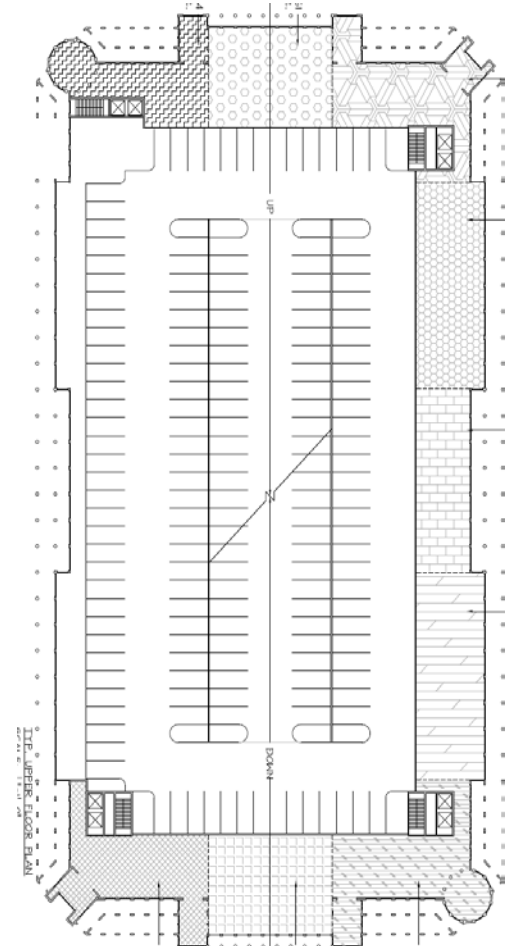
- Review existing conditions
- Site limitations
- Traffic circulation
- Adjacencies and pedestrian flows
- Scale and massing of adjacent buildings
- Service to adjacent businesses



Parking Study Objectives

Design

- Determine if available sites for structured parking are suitable to meet future needs and are consistent with the master plan
- Build consensus within the community on overall parking issues and for proposed new parking
- Can the available sites attract redevelopment / private investment
- Project the capital and operational costs of new parking
- Develop business / implementation plan for new parking and for improvements to the overall parking system
- Effect on parking rates



Recommendations

Example – Project Cost Calculation

9/2/2009 7 PM

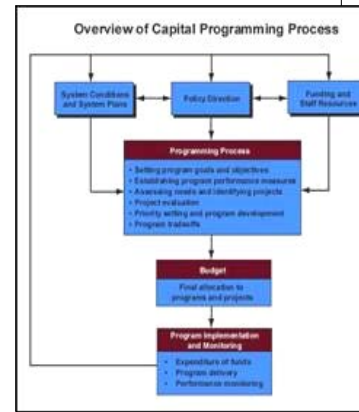
**CULTURAL CENTER PARKING
PROJECT AND FINANCE COSTS
800 SPACES ABOVE GRADE NO EQUITY**

1 Construction Cost	800 x \$18,000	\$14,400,000
2 Professional Fees (Architectural/Engineering & Reimbursed)		\$792,000
3 Insurance		\$60,000
4 Legal and Accounting		\$30,000
5 Geotech and Survey		\$60,000
6 Plaza/Landscaping		\$486,000
7 Contingency		\$1,489,000
8 Equity		\$0
9 Project Cost to be Financed		\$17,317,000
10 Financing Term	20 Years	
11 Interest Rate	4.75 %	
12 Term of Construction	12 Months	
Financing Costs		
13 Interest During Construction		\$975,000
14 Interest Income	40% @ 1%	(\$103,000)
15 Legal & Accounting Fees	@ 1.00%	\$205,000
16 Debt Service Reserve		\$1,612,000
17 Financing Fees (Points)	@ 2.00%	\$410,000
18 Cost of Issuance	@ 0.50%	\$103,000
19 Total Financing Costs		\$3,202,000
20 + Project Cost to Be Financed		\$17,317,000
21 Total Amount of Bonds		\$20,519,000
22 Debt Service		\$1,612,000

Phase 2 – Recommendations

Business Plan – Implementation Plan

- Parking management program
- Parking access and management control systems recommendations
- Construction and operating costs analysis
- Pricing schedule and revenue model
- Funding strategies
- Public / Private Partnership Potential
- Pro forma analysis
- Bidding / construction strategies



Construction Cost	800 x \$18,000	\$14,400,000
Professional Fees (Architectural/Engineering & Related)		\$792,000
Insurance		\$60,000
Legal and Accounting		\$30,000
Geotech and Survey		\$60,000
Grass/Landscaping		\$408,000
Contingency		\$1,488,000
Utility		\$0
Project Cost to be Financed		\$17,317,000
Financing Term	20 Years	
Interest Rate	4.75 %	
Term of Construction	12 Months	
Costs		
Interest During Construction		\$975,000
Interest Income	40% @ 1%	(\$103,000)
Legal & Accounting Fees	@ 1.00%	\$206,000
Debt Service Reserve		\$1,812,000
Financing Fees (Points)	@ 2.00%	\$410,000
Cost of Issuance	@ 0.50%	\$103,000
Total Financing Costs		\$3,292,000
+ Project Cost to be Financed		\$17,317,000
Total Amount of Bonds		\$20,519,000
Debt Service		\$1,812,000

	FY 2003	FY 2004							
Revenues:									
<u>Annual Gross (Existing)</u>									
Garages and Lots	\$12,232,917	\$15,834,117							
Meters	\$2,166,134	\$2,199,117							
Sum	\$14,399,051	\$18,033,234							
<u>Other Income (Existing)</u>									
Interest Income (1.5%)	\$398,321	\$228,969	\$176,074	\$160,373	\$163,767	\$158,460	\$142,047	\$145,895	
Arena Rentals	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$0	\$0	\$0
Ticket Surcharge	\$3,626,545	\$3,807,872	\$3,998,266	\$4,198,179	\$4,408,088	\$4,618,000	\$0	\$0	\$0
Concessions and Suite Lease	\$2,888,734	\$3,033,171	\$3,184,830	\$3,344,071	\$3,511,275	\$3,686,838	\$3,868,838	\$3,686,838	\$3,686,838
Sum	\$7,363,601	\$7,519,952	\$7,811,169	\$8,160,823	\$8,533,150	\$8,825,298	\$3,831,886	\$3,832,734	
<u>New Income (Proposed)</u>									
New Structure	\$0	\$0	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$900,000	
Total Annual Revenue:	\$21,762,652	\$25,554,379	\$26,565,509	\$27,281,556	\$27,857,728	\$23,365,956	\$25,119,165	\$25,346,123	
Expenses:									
<u>Existing Facility O&M</u>									
(3% Annual Inc.)	\$10,097,423	\$10,911,846	\$11,239,201	\$11,576,377	\$11,923,669	\$12,281,379	\$12,649,820	\$13,029,315	
<u>Proposed New Facility O&M</u>									
(3% Annual Inc.)	\$0	\$0	\$500,000	\$515,000	\$530,450	\$546,364	\$562,754	\$579,637	
Total Annual Expenses:	\$10,097,423	\$10,911,846	\$11,739,201	\$12,091,377	\$12,454,119	\$12,827,742	\$13,212,575	\$13,608,952	
Net Available For Debt Serv:	\$11,665,229	\$14,642,533	\$14,826,308	\$15,190,179	\$15,403,609	\$10,528,214	\$11,906,590	\$11,737,171	
Debt Service:									
Existing Debt Service	\$10,806,630	\$10,554,419	\$10,741,080	\$10,604,875	\$5,223,573	\$4,606,973	\$4,668,418	\$4,820,322	
New Debt Service	\$10,858	\$941,250	\$1,763,243	\$1,761,984	\$1,759,622	\$1,761,150	\$1,756,306	\$1,755,353	
Total Debt Service:	\$10,817,488	\$11,495,669	\$12,504,323	\$12,366,859	\$6,983,195	\$6,368,123	\$6,424,724	\$6,575,675	
Surplus/Deficit:	\$847,741	\$3,146,864	\$2,321,985	\$2,823,320	\$8,420,414	\$4,160,091	\$5,481,866	\$5,161,497	
Debt Coverage Ratio (Gross)	2.01	2.22	2.12	2.21	3.99	3.67	3.91	3.85	
Debt Coverage Ratio (Net)	1.08	1.27	1.19	1.23	2.21	1.65	1.85	1.78	

Phase 2 – Recommendations

Parking System Improvements

Parking management and operation strategies including:

Policies and procedures

Allocation (permits for designated locations)

Time restrictions

Pricing

Enforcement

Signage

Marketing

Evaluate improved use of existing parking



Parking Planning Study Results

- Should be able to meet both current **and** future needs
- Parking can be a tool for downtown improvement
- Parking requirements are unique to the community
- Solutions should be in the best interest of the community and fit the community
- Economics as important as the demand assessment

Questions ?